CLAIMS

1. A DNA molecule derived from a prokaryotic cell in which at least one of the DNA regions encoding NXB (N is asparagine, X is any amino acid other than proline, and B is serine or threonine) has been modified so that no N-glycosylation occurs during the expression in a eukaryotic cell.

2. The DNA molecule according to claim 1, wherein said alteration that attempts to prevent N-glycosylation is at least one of the following:

(1) the alteration of the DNA sequence encoding asparagine (N) to a DNA sequence encoding an amino acid other than asparagine;

(2) the alteration of the DNA sequence encoding any amino acid (X) other than proline to a DNA sequence encoding proline; and

(3) the alteration of the DNA sequence encoding serine or threonine (B) to a DNA sequence encoding an amino acid other than serine or threonine.

3. The modified DNA molecule according to claim 1, wherein said DNA molecule derived from a prokaryotic cell is a DNA encoding an antigen protein.

4. The modified DNA molecule according to claim 1, wherein said prokaryotic cell is Mycoplasma.

5. The modified DNA molecule according to claim 1, wherein said DNA molecule derived from a prokaryotic cell is a DNA derived from Mycoplasma having the DNA sequence according to claim 1 or 2.

6. A fused DNA molecule, wherein a DNA encoding a signal sequence has been ligated to the N-terminal end of the modified DNA molecule according to claim 1 so that it may be expressed as a fusion protein.

7. The fused DNA molecule according to claim 6, wherein at least one of the DNA regions of DNA encoding said signal sequence in which said signal sequence-encoding DNA comprises DNA regions encoding NXB (N is asparagine, X is any amino acid other than proline, and B

is serine or threonine) has been modified so that no N-glycosylation occurs during the expression in the eukaryotic cell.

8. The fused DNA molecule according to claim 6, wherein said signal sequence is a signal sequence derived from the gB of Marek's disease virus or a signal sequence derived from the gG of Rabies virus.

9. The fused DNA molecule according to claim 6, wherein said DNA molecule derived from a prokaryotic cell has a DNA sequence described in SEQ ID NO: 1 or 2 derived from Mycoplasma, and said signal sequence is a signal sequence derived from the gB of Marek's disease virus or a signal sequence derived from the gG of Rabies virus.

10. A recombinant virus that has integrated therein

(1) a DNA molecule derived from a prokaryotic cell in which at least one of the DNA regions encoding NXB (N is asparagine, X is any amino acid other than proline, and B is serine or threonine) has been modified so that no N-glycosylation occurs during the expression in a eukaryotic cell, or

(2) a fused DNA molecule in which a DNA encoding a signal sequence is ligated to the N-terminal end of said modified DNA molecule so that it may be expressed as a fusion protein.

11. The recombinant virus according to claim 10, wherein said alteration that attempts to prevent N-glycosylation is at least one of the following:

(1) the alteration of the DNA sequence encoding asparagine (N) to a DNA sequence encoding an amino acid other than asparagine;

(2) the alteration of the DNA sequence encoding any amino acid (X) other than proline to a DNA sequence encoding proline; and

(3) the alteration of the DNA sequence encoding serine or threonine (B) to a DNA sequence encoding an amino acid other than serine or threonine.

12. The recombinant virus according to claim 10,

wherein said DNA molecule derived from a prokaryotic cell is a DNA molecule derived from Mycoplasma having the DNA sequence according to claim 1 or 2.

13. A recombinant virus that has integrated therein a fused DNA molecule, wherein a DNA encoding a signal sequence that has been modified so that no N-glycosylation occurs during the expression in a eukaryotic cell has been ligated to the N-terminal end of a DNA molecule derived from a prokaryotic cell in which at least one of the DNA regions encoding NXB (N is asparagine, X is any amino acid other than proline, and B is serine or threonine) has been modified so that no N-glycosylation occurs during the expression in a eukaryotic cell, so that it may be expressed as a fusion protein.

14. The recombinant virus according to claim 13, wherein said signal sequence is a signal sequence derived from the gB gene of Marek's disease virus or a signal sequence derived from the gG gene of Rabies virus.

15. The recombinant virus according to claim 10 or 13, wherein said virus is a poxvirus or a herpesvirus.

16. The recombinant virus according to claim 10 or 13, wherein said virus is a virus that infects avians.

17. The recombinant virus according to claim 10 or 13, wherein said virus is an avipoxvirus.

18. The recombinant virus according to claim 10 or 13, wherein said virus is a Marek's disease virus type I, type II, or type III.

19. A method of producing an modified protein or a fusion protein comprising the same, said method comprising using:

(1) a recombinant virus that has integrated therein a DNA molecule derived from a prokaryotic cell in which at least one of the DNA regions encoding NXB (N is asparagine, X is any amino acid other than proline, and B is serine or threonine) has been modified so that no N-glycosylation occurs during the expression in a

eukaryotic cell, or

(2) a recombinant virus that has integrated therein a fused DNA molecule in which a DNA encoding a signal sequence has been ligated to the N-terminal end of said modified DNA molecule so that it may be expressed as a fusion protein,

to express a protein encoded by said modified DNA molecule or said fused DNA molecule in a eukaryotic cell.

20. A vaccine comprising the recombinant virus according to claim 10 or 13.